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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,649

05/18/2006

Nancy Daou

J3734(C)

9363

201 7590 07/07/2009
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EXAMINER

SIMMONS WILLIS, TRACEY A

ART UNIT

PAPER NUMBER

1619

MAIL DATE

DELIVERY MODE

07/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/579,649	Applicant(s) DAOU ET AL.	
	Examiner TRACEY SIMMONS WILLIS	Art Unit 1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Claims

Applicant's amendments filed April 14, 2009 have been entered. Claim 11 has been cancelled. Claim 13 has been added. Claims 1-10 and 12-13 are pending in the current application and are being considered on their merits. References not included with this Office action can be found in a prior action. Any rejections or objections of record not particularly addressed below are withdrawn in light of the claim amendments and applicant's comments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 12 remain rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication EP0956850 (Kruger) in view of U.S. Patent 5,482,703 (Pings) and U.S. Patent 6,613,316 (Sun et al).

Kruger teaches of hair conditioning formulation [pg 3, par 13, line 44] comprising a cellulose ether and a quaternary ammonium compound [pg 1, par 3, lines 14-15]. The quaternary ammonium compounds include cetyl trimethylammonium chloride and dipalmitoylethyldimonium chloride (dimethylbis[2-[(1-oxohexadecyl)oxy]ethyl]ammonium chloride) and can be use as a mixture in the formulation [pg 1, par 7, lines 50-52]. Amounts of the quaternary ammonium compound range from 0.15 to 5 wt%, with a preferred range of 0.2 to

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2 wt% [pg 1, par 7, lines 54 and 56]. Other components included in the formulation of one embodiment taught by Kruger are 2.5 wt% cetyl alcohol (fatty material) [pg 3, par 13, line 54], and 89.95 wt% water [pg 4, par 13, line 2] and oil components [pg 3, par 7, line 1]. The hair formulations are applied to the hair as rinses and creams [pg 3, par 10].

While Kruger mentions sodium chloride in the cellulose ether in an amount less than or equal to 4 wt% [pg 3, par 12, line 37], Kruger does not teach of potassium chloride as the alkali metal salt. Kruger also does not teach of specific oils, or of the ratios of quaternary ammonium compounds when used as a mixture.

Pings teaches of hair conditioning compositions [col 1, lines 8-10] comprising water, a silicone conditioning agent (silicone oils [col 3, line 20]), a cationic surfactant (cetyl trimethyl ammonium chloride [col 6, line 5]) and fatty alcohols [col 2, lines 23 and 32-34]. Pings further teaches of salts used such as potassium chloride in range of 0.001 to 1 wt% [col 7, lines 10-12].

Sun et al teach of aqueous opaque conditioners using two different conditioning agents at ratios that optimize their benefit [col 2, lines 59-60 and 67]. The ratio of monoalkyl quat to dialkyl quat ranges from about 15:1 to 2:1 or from about 10:1 to 2:1 [col 3, lines 38 and 40].

The ranges for the quaternary ammonium compounds as taught by Kruger overlap with those cited in the claims for the alkyl trimethylammonium salt, and the preferred range falls within that cited for the dialkylethyl dimethylammonium salt. The range for alkali metal salt as taught by Pings overlaps with the cited range. The amount of the fatty alcohol and water taught by Kruger fall within the cited ranges. One of ordinary skill in the art at the time of the invention would have been motivated to optimize the amounts of the components in the composition for

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the desired thickness (viscosity), opaqueness (resulting from the quaternary ammonium compounds and fatty alcohol), and conditioning benefits on the hair.

One of ordinary skill in the art at the time of the invention would have been motivated to add silicone oils to the formulation of Kruger for added conditioning benefit to the hair. One of ordinary skill in the art at the time of the invention would have also been motivated to add an alkali metal halide to and further optimize the amount of alkali metal halide in the composition of Kruger to modify the rheology of the formulation as suggested by Pings [col 7, lines 9-10]. Pings also teaches of use of the composition by applying to hair, rinsing [col 7, lines 64 and 67], and drying [col 11, line 6]. One of ordinary skill in the art at the time of the invention would have found it *prima facie* obvious to use the steps taught by Pings for the formulation of Kruger in order to use the formulation to condition the hair, particularly if the formulation is not a leave-in conditioner. With regard to claim 11, Examiner interprets the claim as being drawn to a method as taught above that uses the composition of claim 1. One of ordinary skill in the art at the time of the invention would have been motivated to optimize the ratios of quaternary ammonium compounds based on the desired softness, shine, and combability of the hair.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication EP0956850 (Kruger) and evidenced by U.S. Patent 6,613,316 (Sun et al).

Kruger teaches of hair conditioning formulation [pg 3, par 13, line 44] comprising a cellulose ether and a quaternary ammonium compound [pg 1, par 3, lines 14-15]. The quaternary ammonium compounds include cetyl trimethylammonium chloride and

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dipalmitoylethyldimonium chloride and can be use as a mixture in the formulation [pg 1, par 7, lines 50-52]. Amounts of the quaternary ammonium compound range from 0.15 to 5 wt%, with a preferred range of 0.2 to 2 wt% [pg 1, par 7, lines 54 and 56]. Other components included in the formulation of one embodiment taught by Kruger are 2.5 wt% cetyl alcohol (fatty material) [pg 3, par 13, line 54], and 89.95 wt% water [pg 4, par 13, line 2] and oil components [pg 3, par 7, line 1]. Kruger also teaches of sodium chloride (alkali metal halide) in the cellulose ether [pg 3, par 12, line 37]. Kruger does not teach of the presence of opacifiers in the composition.

Kruger does not teach of the recited ratio of the ammonium salts; however it would have been within the purview of the skilled artisan to optimize the ratio of the two salts as the ratios have been taught by the prior art as evidenced by Sun [col 3, lines 38-40].

Therefore the invention as a whole would have been *prima facie* obvious at the time it was made.

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Response to Arguments

Applicant's response to rejections applied under 35 U.S.C §103 (a) (claims 1-10 and 12):

- Applicant alleges the recited ratio of alkyl trimethylammonium salt to dialkoyldimethyl ammonium salts, and alkali metal halide (pg 6),
- Sodium chloride need not be present in the cellulose component of the claimed invention (pg 7),
- Kruger does not disclose or suggest the recited ratio (pg 7),
- Ping does not disclose the combination of alkyl trimethylammonium salt and dialkoyldimethyl ammonium salts and the degree of opacity is not taught (pg 8), and
- None of the references (Kruger, Pings, and Sun) disclose improving the opacity of the composition (pg 8).

These arguments have been considered and are not found persuasive.

With regards to the importance of the recited ratio, applicant indicates the findings of the comparative data as disclosed in the instant specification; however, examiner notes that the comparative data includes one sample containing both ammonium salts and the other sample with only one ammonium salt. The examiner is not convinced that the ratio of the two ammonium salts is critical to the opacity of the instant invention as the comparative example has only one salt present as opposed to two salts of different value (ratio).

With respect to the presence of sodium chloride in the cellulose component, examiner notes that presence of the salt is required in the claim and is present in the composition as taught by Kruger. The claims do not recite absence of the alkali metal salt from the cellulose component and was therefore not a limitation.

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In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Kruger teaches of the two ammonium salts (alkyl trimethylammonium and dialkoyldimethyl ammonium salt) that can be used as a mixture in a hair conditioner, Pings teaches of the recited alkali halide (potassium chloride) that can be added in place of the sodium chloride taught by Kruger, and Sun teaches of the possible ratios of the ammonium salts with motivation for optimization as conditioning agents. The skilled artisan would have found the combination of the references as teaching the limitations of the instantly claimed invention, making the invention *prima facie* obvious at the time it was made.

In response to applicant's argument that none of the references disclose or suggest improving the opacity of the composition, the fact that applicant has recognized another use which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). The prior art teaches all of the components of the instantly claimed invention and absent evidence to the contrary, the composition taught in the prior art would reasonably be expected to be successful at improving the opacity of the composition. ~~is capable of having the intended use disclosed.~~

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., opacity) are not recited in the rejected claim(s). Although the claims are interpreted in light of the

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specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Examiner notes that the improvement of the opacity of the composition is an intended use not recited within the claims. The claims are directed to a product, and the prior art teaches the components of the product recited and therefore, would be capable of performing the intended use with a reasonable expectation of success.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRACEY SIMMONS WILLIS whose telephone number is

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(571)270-5861. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at (571)272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/T. S.W./

Examiner, Art Unit 1619

/MP WOODWARD/

Supervisory Patent Examiner, Art Unit 1615